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## NOTICE OF ALLOWANCE AND ISSUE FEE DUE

18M1/1015

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/409, 122	10/22/95	011	SALIMI, A	1815 10/15/97
First Named Applicant	JOYCE,		JOSEPH G.	

TITLE OF  
INVENTION RECOMBINANT HUMAN PAPILLOMAVIRUS TYPE 18 VACCINE

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
1 19425	424-204.100	T10	UTILITY	NO	\$1320.00	01/15/98

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.  
PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS  
APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

### HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.  
If the SMALL ENTITY is shown as yes, verify your current SMALL ENTITY status:

If the SMALL ENTITY is shown as NO:

A. Pay FEES DUE shown above, or

A. If the status is changed, pay twice the amount of the FEES DUE shown and notify the Patent and Trademark Office of the change in status, or  
B. If the status is the same, pay the FEES DUE shown above.

B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEES DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "6b" of Part B should be completed.

III. All communications regarding this application must give application number and batch number.  
Please direct all communication prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

<b>Notice of Allowability</b>	Application No. <b>08/409,122</b>	Applicant(s) <b>Joyce et al</b>
	Examiner <b>ALI R. SALIMI</b>	Group Art Unit <b>1815</b>

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

This communication is responsive to 7/7/97

The allowed claim(s) is/are 14, 19-23, and 25-29

The drawings filed on \_\_\_\_\_ are acceptable.

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All    Some\*    None   of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

Applicant MUST submit NEW FORMAL DRAWINGS

because the originally filed drawings were declared by applicant to be informal.

including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 4.

including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.

including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

#### Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152
- Interview Summary, PTO-413
- Examiner's Amendment/Comment
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- Examiner's Statement of Reasons for Allowance

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\*9/c

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Giesser on 10/9/97.

The application has been amended as follows:

Canceled claims 13, 15-18 and 24, and added new claims 25-29.

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Claim 25. Isolated or purified virus-like particles comprising recombinant Human Papillomavirus type 18 L1 protein having the amino acid sequence of SEQ ID No: 2.

Claim 26. The virus-like particles of claim 25, wherein said particles are produced by expression of a recombinant nucleic acid encoding SEQ ID NO: 2.

Claim 27. The virus-like particles of claim 26, wherein said particles are produced by expression of a recombinant nucleic acid encoding SEQ ID NO: 1.

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Claim 28. A vaccine comprising a pharmaceutically acceptable carrier and an immunoprotective amount of the virus-like particles of claim 25.

Claim 29. A vaccine comprising a pharmaceutically acceptable carrier and an immunoprotective amount of the virus-like particles of claim 14.

Claim 14 (amended) in line one deleted "13", inserted ---25---.

Claim 19 (amended) in line two deleted "administration of" inserted --administering--; in line two deleted "15", inserted ---28---.

Claim 20 (amended) in line two deleted "administration of" inserted --administering--; in line two deleted "16", inserted ---29---.

Claim 21 (amended) in line one deleted "1", inserted ---25---.

Claim 22 (amended) in line two deleted "13", inserted ---25---.

Claim 23 (amended) in line one deleted "Virus-like", inserted ---Isolated or purified virus-like---.

Claims 14, 19-23, and 25-29 are allowed.

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The claims have been renumbered as appear below:

Original    Issue

25	1
14	2
26	3
27	4
28	5
29	6
19	7
20	8
21	9
22	10
23	11

Applicant is reminded that once the drawings are changed to meet the separate numbering requirement in the PTO-948 attached to paper No. 4, applicant is required to file an amendment under 37 CFR 1.312 to change the Brief Description of the Drawings and the rest of the specification accordingly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Salimi whose telephone number is (703) 305-7136. The examiner can normally be reached on Monday-Friday from 9:00 Am to 6:00 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode, can be reached on (703) 308-4311. The fax phone number for this Group is (703) 305-3014.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Ali R. Salimi

10/9/97

*Marian C. Knodt*

MARIAN C. KNODE  
SUPERVISORY PATENT EXAMINER  
GROUP 1800